

$$mmf = N \cdot I$$

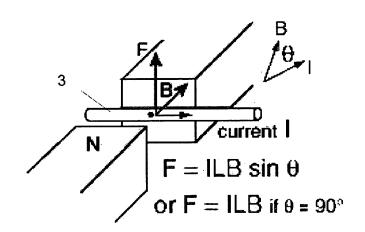
$$R_{mk} = \frac{L_{mk}}{\mu_{mk} \cdot A_{mk}}$$

$$R_{me} = \sum_{k} R_{mk}$$

$$\Phi = \frac{mmf}{R_{me}}$$

$$F = \frac{\Phi^{2}}{2 \cdot \mu_{0} \cdot A}$$

FIG. 1 (PRIOR ART)



$$F = qvB \sin \theta$$

$$F = q \frac{L}{t} B \sin \theta$$

$$F = \frac{q}{t} LB \sin \theta$$

$$F = ILB \sin \theta$$

FIG. 2 (PRIOR ART)

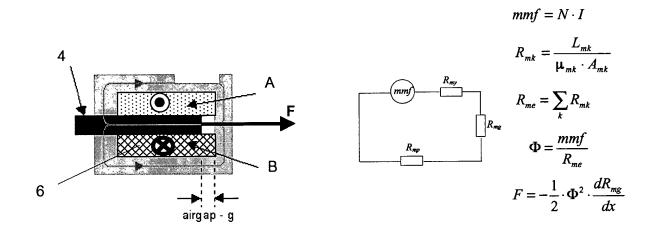


FIG. 3 (PRIOR ART)

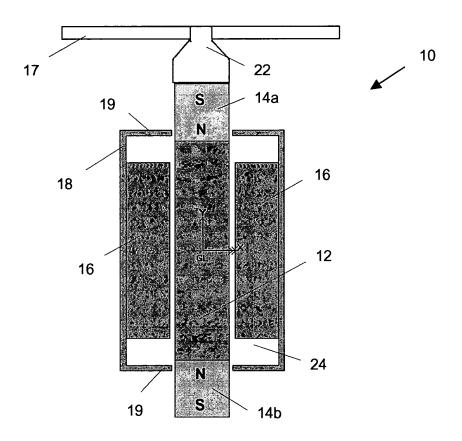


FIG. 4

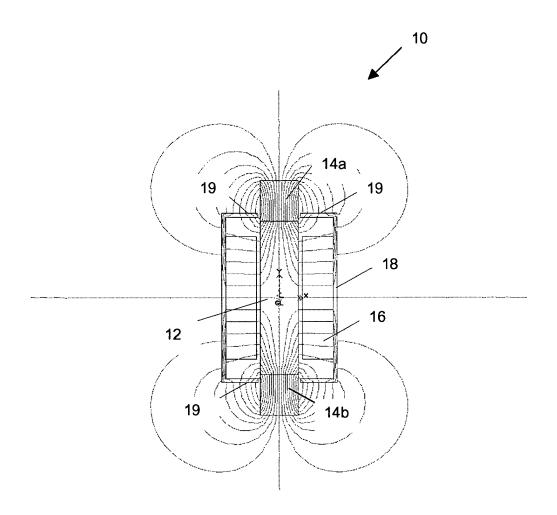


FIG. 5A

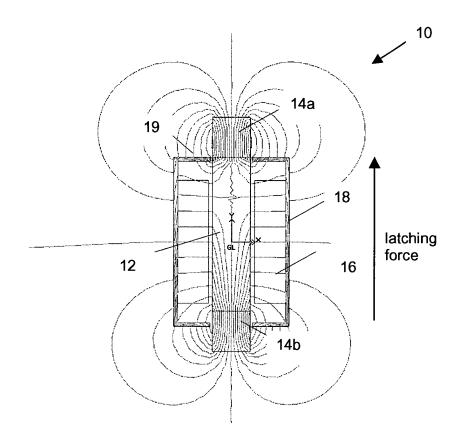
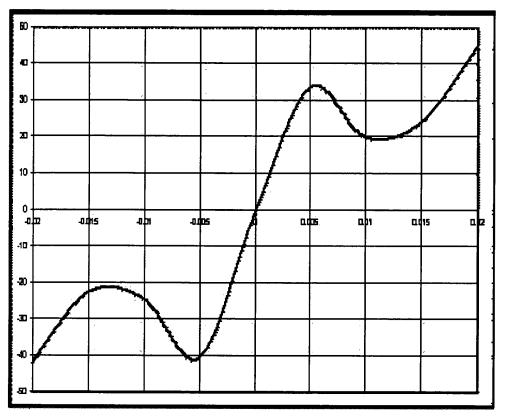


FIG. 5B

## Latching force [grams]



Positional displacement [inches]

FIG. 5C

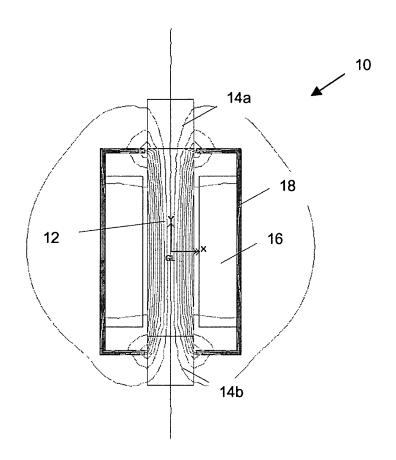


FIG. 6

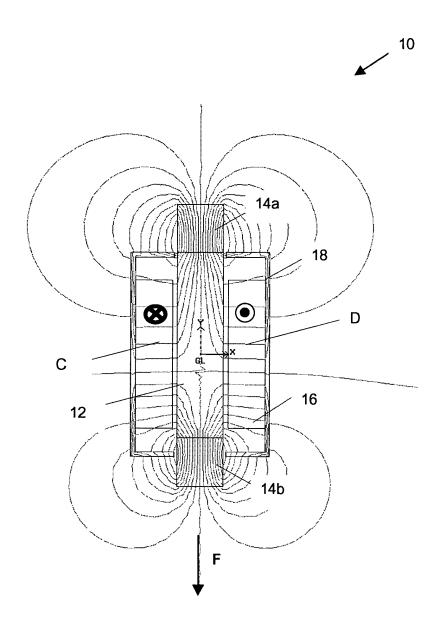


FIG. 7A

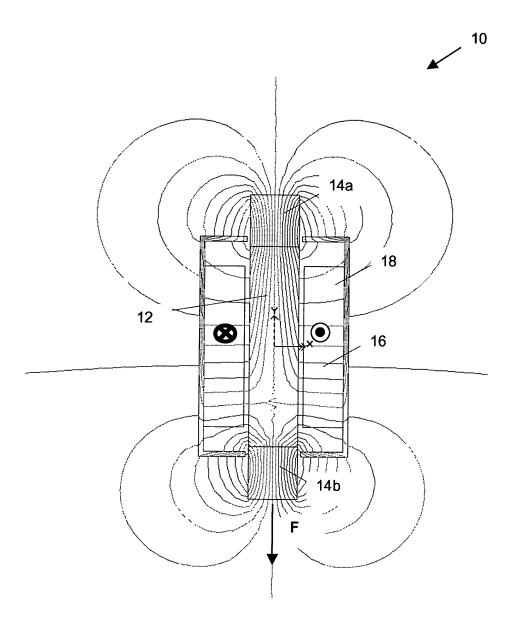


FIG. 7B

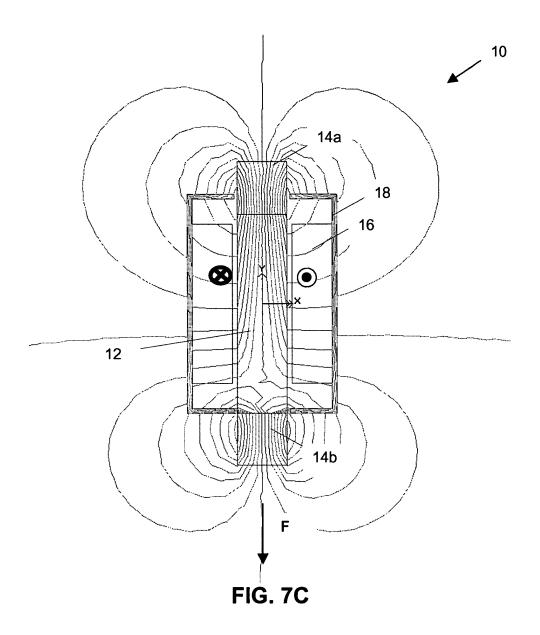


FIG. 8A

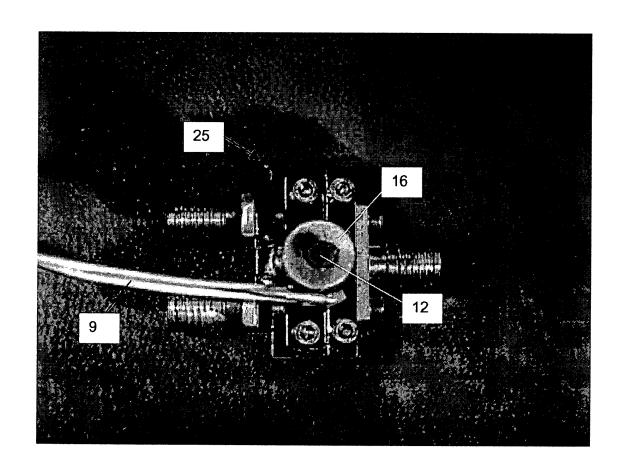


FIG. 8B

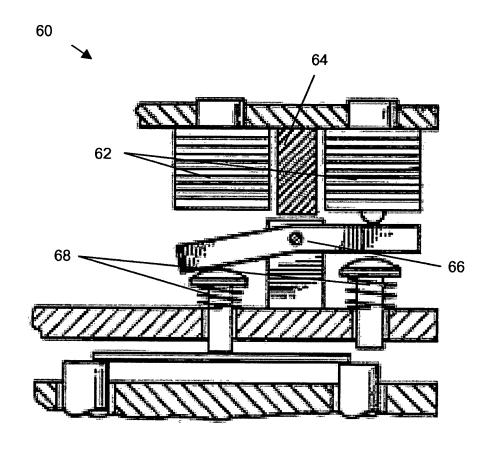


FIG. 9 (PRIOR ART)